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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SAJOUS, WESNER

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 04/24/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,701

Applicant(s)

HOPPE ET AL.

Examiner

Wesner Sajous

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-50 and 52-74 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This Office Action is in response to application serial number 09/843,152, filed on April 27, 2001, including the preliminary amendment dated August 27, 2001. Claims 1-8 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 70 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 70 recites the limitation "means for sorting the discontinuity edges" in line

6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-4, 6-13, 15-20, 43-47, 5-64, 66, 68-69, and 71-74 are rejected under 35 U.S.C. 102(e) as being anticipated by Landau et al. (Pat. No. 6115050).

Considering claim 1, Landau discloses a method comprising rendering (as performed by item 166 of fig. 12) a polygon mesh to produce a computer-generated image (as performed by item 164 of fig. 12). The Applicant is directed to fig. 1 for an example of a computer generated image produced of polygon meshes. See also figs. 1 or fig. 4 or fig. 6 or figs. 8-9 for the polygonal mesh). Landau, discloses an image exhibiting aliasing at its discontinuity edges (e.g., aliasing effects at image areas representing silhouette edges, see abstract, and also fig. 2, i.e., the "staircase" image as characterization of image exhibiting aliasing at its discontinuity edges). In addition, Landau discloses overdrawing the discontinuity edges as antialiased lines to reduce the aliasing (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the silhouette edges of the object being antialiased corresponding to the antialiased lines—see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

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Re claim 2, Landau discloses polygon mesh comprises a set of triangles (as characterized by fig. 1).

As per claim 3, the claimed "image is stored in memory after rendering, and the overdrawing comprises rendering the discontinuity edges as antialiased lines in the memory... edges" is met by fig. 12, item 170.

In claim 4, the claimed "identifying the discontinuity edges as a collection of silhouettes and sharp edges" is inherently met by the abstract, at lines 1-6, wherein the sharp edges correspond to the aliasing effects shown at the silhouettes edges of the objects, and/or the zigzag representation or staircase effect illustrated at fig. 2. Hence, the discontinuity edges are a combination of the silhouettes and the sharp edges.

As per claims 6, 7 and 9, the claimed "shading discontinuity edges and blending selected discontinuity edges; and asymmetrically blending selected discontinuity edges" is inherently performed by the system of Landau, because in order to Landau to perform antialiasing to smooth the jaggy edges of the image, the edge portions of the image where aliasing is present has to be blended with image edges into the background color the image is being rendered on. Consequently, pixels at the edges of the aliased line are shaded. The inherent blending of discontinuity edges is asymmetric because not all section of the image edges is processed for anti-aliasing.

Re claim 8, the claimed "orienting the discontinuity edges in a consistent manner" is inherently met by the disclosure at col. 6, lines 5-40, for the triangle strip processing referred to at the cited disclosure characterizes the discontinuity edges.

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As per claim 10, the claimed "sorting the discontinuity edges prior to said overdrawing" is inherently performed by the polygon rendering 166 of fig. 12, because the overdrawing or redrawn over of certain edges does not performed until the rendered image is stored in memory 170 of fig. 12. Note that the "compile object model 114" including the "edge index " under the control of processor 168 characterizes the edge overdrawing functions.

Claim 11 is a computer-readable media comprising computer-executable instructions performing the method of claim 1, and is similarly rejected. See col. 1, lines 4-6.

The invention of claim 12 recites features equivalent to and performing the method of claim 1, it is, therefore similarly rejected.

Claim 13 recites the features of claim 4, it is similarly rejected.

Claims 15-20 recites the cited features of claims 6-11, they are, therefore rejected under the same rationale as claims 6-11.

Regarding claim 43, Landau discloses rendering a polygonal mesh (as performed by item 166 of fig. 12, see figs. 1 or fig. 4 or fig. 6 or figs. 8-9 for the polygonal mesh); identifying silhouette edges of the polygon mesh for a given viewpoint (see col. 2, lines 55-61 and col. 11, lines 40-45. It is noted that in computer graphics rendering, the silhouette edges can be identified based on the perimeter of a polygon object). And, Landau discloses overdrawing the discontinuity edges as antialiased lines (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the silhouette edges of the object being

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antialiased corresponding to the antialiased lines—see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

Considering claim 44, Landau discloses constructing a data structure (e.g., object models 102 and/or compiled object models 114 of fig. 10) prior to rendering a polygon mesh (see fig. 12, items 162 and 166, see col. 7, lines 15-20); and finding silhouette edges in the polygon mesh during runtime using the data structure (as performed by item 112 of fig. 10, see col. 7, lines 21-25); and storing the edges in an output list (114 of fig. 10). The Applicant should note that the class border edges are silhouette edges, and the triangle strips including the associated vertices that correspond to the polygon mesh. See col. 6, lines 30-35.)

Claim 45 is rejected for the same reason as claim 6.

Claim 46 is rejected for reason similar to claim 10.

Claim 47 is rejected for reason similar to claim 43.

Considering claim 53, Landau discloses a memory (170, fig. 12) to store polygon mesh; and a processing unit (166 and 168 of fig. 12) to render the polygon mesh, the processing unit (166 and 168 of fig. 12) being configured to overdraw discontinuity edges as antialiased lines to reduce the aliasing (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the silhouette edges of the object being antialiased corresponding to the antialiased lines—see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

Claim 54 is rejected for the same reason as claim 2.

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Claim 55 is rejected for the same reasons as claim 4.

Re claim 56, Landau discloses a processing unit (166, 168, fig. 12) configured to detect discontinuity edges (e.g., silhouette edges, see col. 2, lines 50-65); and a graphics-processing unit (166) configured to render the polygon mesh and to overdraw the discontinuity edges.

Re claim 57, the claimed "frame buffer to store the rendered mesh" (is characterized by the function of item 170 of fig. 12); and the claimed "render the discontinuity edges as antialiased lines in the frame buffer" is inherently performed by item 166 of fig. 12.

Claims 58-62 recite the features of claims 6-10, respectively, they are, therefore, rejected for the same reasons as claims 6-10.

Considering claim 63, Landau discloses a graphics processing system (see fig. 12) comprising a renderer (166 of fig. 2) a polygon mesh (see figs. 1 or fig. 4 or fig. 6 or figs. 8-9 for the polygonal mesh); a discontinuity edge detector (162 of fig. 12) configured to detect edge in the polygon mesh (see col. 2, lines 40-42, and col. 11, lines 40-50, wherein the determined silhouette edges correspond to the detected discontinuity edges); an overdrawer configured to overdraw the discontinuity edges as antialiased lines to reduce the aliasing (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the silhouette edges of the object being antialiased corresponding to the antialiased lines—see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

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Re claim 64, Landau discloses a data structure (162, fig. 12); and the discontinuity edge detector (162 of fig. 12) configured to detect edge in the polygon mesh (see col. 2, lines 40-42, and col. 11, lines 40-50, wherein the determined silhouette edges correspond to the detected discontinuity edges).

Claim 66 is rejected for reason similar to claim 49.

Claim 68 is rejected for reason similar to claim 47.

Claim 69 is a computer-readable media with program instructions performing the method of claim 63, it is, therefore, rejected under the same rationale as claim 63.

Claim 71 is rejected for reason similar to claim 6.

Claim 73 is a computer-readable media with computer-executable instructions performing the combined methods of claims 7 and 8.

Considering claim 74, Landau discloses a graphics processing system (see fig. 12) comprising means (162, fig. 12) for identifying sharp edges in a polygon mesh (wherein the sharp edges correspond to the aliasing effects shown at the silhouettes edges of the objects, and/or the zigzag representation or staircase effect illustrated at fig. 2, see abstract); means for rendering (166 of fig. 2) the polygon mesh (see figs. 1 or fig. 4 or fig. 6 or figs. 8-9 for the polygonal mesh); means for identifying silhouette edges that occur from at least one viewpoint of the rendered image (col. 11, lines 40-45); means (166, fig. 12) for shading the discontinuity edge (see col. 9, lines 30-40); means (112, and 114 of fig. 10) for sorting the discontinuity edges; and means for overdrawing the discontinuity edges as antialiased lines (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the

silhouette edges of the object being antialiased corresponding to the antialiased lines— see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5, 14, 21-42, 48-50, 52, 65, 67, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landau.

Considering claim 21, Landau discloses constructing a data structure (e.g., object models 102 and/or compiled object models 114 of fig. 10) prior to rendering a polygon mesh (see fig. 12, items 162 and 166, see col. 7, lines 15-20); and finding silhouette edges in the polygon mesh during runtime using the data structure (as performed by item 112 of fig. 10, see col. 7, lines 21-25. Note that the class border edges are silhouette edges, and the triangle strips including the associated vertices that correspond to the polygon mesh. See col. 6, lines 30-35.)

It is noted that Landau lacks implicit recitation for the claimed—omitting concave silhouette edges from the data structure.

However, Landau suggests that the data structure that defines the triangle strip carries a flag which indicates the direction of the first triangle strip and is used by the

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rendering pipeline to determine the direction of all triangles in each strip, in order to determine which triangles are back-facing and therefore need not be rendered. See col. 6, lines 15-23. In evaluating the Landau's depiction, it is apparent that the back-facing triangles are being omitted during processing because they are not being rendered hence, their locations in the data structure may be cumbersome to the processing speed of the system. Thus, those of artisan skilled in the art would readily recognize that such back-facing triangles might represent the concave part of the triangles, which characterizes the border edges. And, as suggested by Landau, the border edges may define silhouette edges (see col. 6, lines 30-35.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the data structure (102 of fig. 10 or 162 of fig. 12) of Landau, so that the concave silhouette edges are omitted from the data structure. Such modification would facilitate the rendering system of Landau to determine which triangles that need to be rendered. See col. 6, lines 20-23.

Re claim 22, Landau discloses overdrawing the silhouette edges as antialiased lines (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the silhouette edges of the object being antialiased corresponding to the antialiased lines—see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

As per claims 23-25, the claimed "shading discontinuity edges and blending selected discontinuity edges; and asymmetrically blending selected discontinuity edges" is inherently performed by the system of Landau, because in order to Landau to perform

antialiasing to smooth the jaggy edges of the image, the edge portions of the image where aliasing is present has to be blended with image edges into the background color the image is being rendered on. Consequently, pixels at the edges of the aliased line are shaded. The intrinsic blending of discontinuity edges is asymmetric because not all section of the image edges is processed for anti-aliasing.

Re claim 26, the claimed "sorting the silhouette edges" is met by item 114 of fig. 10.

Claim 27 is a computer-readable media comprising computer-executable instructions performing the method of claim 21, and is similarly rejected. See col. 1, lines 4-6.

Regarding claim 28, Landau discloses constructing a data structure (e.g., object models 102 and/or compiled object models 114 of fig. 10) prior to rendering a polygon mesh (see fig. 12, items 162 and 166, see col. 7, lines 15-20); finding silhouette edges in the polygon mesh during runtime using the data structure (as performed by item 112 of fig. 10, see col. 7, lines 21-25. Note that the class border edges are silhouette edges, and the triangle strips including the associated vertices that correspond to the polygon mesh. See col. 6, lines 30-35.) Landau discloses collecting the sharp edges and the silhouette edges in a list to form discontinuity edges of the polygon mesh (as performed by items 112 and 114 of fig. 10.

Landau lacks implicit recitation for the claimed identifying sharp edges prior to run time.

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However, Landau, at col. 7, lines 8-20, suggests that the edge compiler 112 generates a unique identifier for the class border edges in the object model 102, and that the edge compiler 112 creates the compiled object model 114 off-line before graphics rendering system begin operating. Landau, at col. 9, lines 15-20, suggests that only those border edges need to be antialiased. Thus, based on the embodiments of Landau, because the border edges in compiler 114 were created before rendering begins and needed to be antialiased, it is apparent these border edges comprise sharp edges or staircases. For sharp edges correspond to the aliasing effects shown at the edges of the objects, and/or the zigzag representation or staircase effect, as illustrated at fig. 2. In that, the discontinuity edges are a combination of the silhouettes and the sharp edges. Hence, the generated unique identification performs by edge compiler 112 to create the compiled object model 114 before rendering may relate the determination of sharp edges from the class border edges.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the data structure (102 of fig. 10 or 162 of fig. 12) and compilers (112 and 114 of fig. 10) in Landau, so that sharp edges can be identified prior to run time. Such modification would facilitate the rendering system of Landau to determine which border edges that need to be anti-aliased or not. See col. 9, lines 15-20.

Claim 5 recites the limitation of claim 28, it is therefore subject to rejection under the same rationale as claim 28.

Claim 14 recites equivalent to and performing the method of claim 5, and is similarly rejected.

As per claims 29-31, the claimed "shading discontinuity edges and blending selected discontinuity edges; and asymmetrically blending selected discontinuity edges" is inherently performed by the system of Landau, because in order to Landau to perform antialiasing to smooth the jaggy edges of the image, the edge portions of the image where aliasing is present has to be blended with image edges into the background color the image is being rendered on. Consequently, pixels at the edges of the aliased line are shaded. The intrinsic blending of discontinuity edges is asymmetric because not all section of the image edges is processed for anti-aliasing.

Re claim 32, the claimed "sorting the silhouette edges" is met by item 114 of fig. 10.

Claim 33 is a computer-readable media comprising computer-executable instructions performing the method of claim 21, and is similarly rejected. See col. 1, lines 4-6.

Regarding claim 34, Landau discloses rendering a polygonal mesh (as performed by item 166 of fig. 12, see figs. 1 or fig. 4 or fig. 6 or figs. 8-9 for the polygonal mesh); determining discontinuity edges of the polygon mesh (see col. 2, lines 55-61 and col. 11, lines 40-45, wherein the silhouette edges correspond to the discontinuity edges); and overdrawing the discontinuity edges in an order resulting from the sorting (e.g., rendering the image based on the compiled border edges to perform antialiasing. See col. 8, line 20 to col. 10, line 44).

Landau fails to specifically disclose sorting the discontinuity edges according to visibility.

However, Landau suggests that by compiler 112 of fig. 12 perform sorting and re-sorting based on identical class border edges (see col. 7, lines 21-25). It is noted that the border edges may correspond to the silhouette edges (see col. 6, lines 25-40) that correspond to the discontinuity edges, which in computer graphics rendering, can be identified based on the perimeter of a polygon object). Hence sorting the class border edges could be performed based on object's visibility.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the data structure (102 of fig. 10 or 162 of fig. 12) and compilers (112 and 114 of fig. 10) in Landau, to include the sorting of discontinuity edges according to visibility, so that objects entries can be easily identified.

Claim 35 recites the features of claim 5, it is similarly rejected.

Re claim 36, the claimed "sorting discontinuity edges according to depth" is inherently performed by compiler 112 of fig. 10, since it takes into consideration the order of the border edges during sorting (see col. 7, lines 5-40).

As per claim 37, Landau discloses overdrawing the discontinuity edges as antialiased lines (e.g., applying an antialiased scheme to the areas of the image representing silhouette edges. See abstract lines 1-6, wherein the silhouette edges of the object being antialiased corresponding to the antialiased lines—see fig. 14. See, further, col. 2, lines 45-61 as characteristic for the overdrawing edges.)

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Claims 38-42 recites features equivalent to claims 6, 7, 9, 8, and 11, respectively, they are, therefore, similarly rejected.

Regarding claim 48, it is noted that the invention claim 48 is combination of, and recites substantially all the features of claims 28-29, and 34-35. As the various elements of claims 28-29, and 34-35 have been found to be obvious over the teaching of Landau, it is readily apparent that the method perform by the applied prior art perform the underlying functions. As such, the limitations of claim 48 are rejected for the combined reasons recited for claims 28-29, and 34-35.

Claim 49 recites the feature of claim 36, it is similarly rejected.

As per claim 50, the claimed "asymmetrically shading discontinuity edges" would have been obvious over the system of Landau, because in order to Landau to perform antialiasing to smooth the jaggy edges of the image, the edge portions of the image where aliasing is present has to be blended with image edges into the background color the image is being rendered on. Consequently, pixels at the edges of the aliased line are shaded. Because the antialiasing is based on selective portion of the image, shading is performed asymmetrically.

Re claim 52, the claimed "orienting the discontinuity edges in a consistent manner" is inherently met by the disclosure at col. 6, lines 5-40, for the triangle strip processing referred to at the cited disclosure characterizes the discontinuity edges.

Claim 65 recites equivalent to and performing the method of claim 5, and is similarly rejected.

Claim 67 is rejected for reason similar to claim 50.

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Claim 70 recites equivalent to and performing the method of claim 5, and is similarly rejected.

Allowable Subject Matter

8. Claim 51 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, because the prior art fail to suggest—shading comprises applying blending processes that balance temporal smoothness, and spatial sharpness.

Conclusion

9. The prior art made of record, considered pertinent to applicant's disclosure, and are not relied upon herein, are as recited in the attached PTO-892 form.

Any response to this action should be mailed to:

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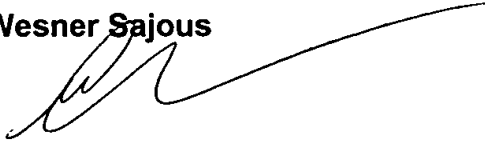
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Hand-held delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, 6th floor (receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesner Sajous whose telephone number is (703) 308-5857. The examiner can be reached on Mondays thru Thursdays and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Supervisor, Matthew Bella, can be reached at (703) 308-6829. The fax phone number for this group is (703) 308-6606.

Wesner Sajous

A handwritten signature in black ink, appearing to read 'Wesner Sajous', with a long horizontal flourish extending to the right.

4/19/03